## WHAT IS CLAIMED IS:

5

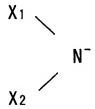
10

20

1. A flame-retardant seamless belt composed of a thermoplastic composition containing a polyester thermoplastic elastomer as a main component thereof; at not less than 15 wt% nor more than 40 wt% of melamine cyanurate, serving as a flame-retardant additive, for a whole weight of said thermoplastic composition; and not less than 0.01 parts by weight nor more than three parts by weight of an anion-containing salt, shown by a chemical formula 1 shown below, for 100 parts by weight of an entire polymer component,

wherein said thermoplastic composition has a volume resistivity of not less than  $1.0\times10^6\Omega\cdot\text{cm}$  nor more than  $1.0\times10^{12}$   $\Omega\cdot\text{cm}$  .

Chemical Formula 1



- where  $X_1$  and  $X_2$  denote functional group, containing C, -F, and -SO<sub>2</sub>-, whose number of carbon atoms is one to eight.
  - 2. The flame-retardant seamless belt according to claim 1, wherein said  $X_1$  of said chemical formula 1 is  $C_{n1}H_{m1}F(2n1-m1+1)-SO_2$ -, and said  $X_2$  of said chemical formula 1 is  $C_{n2}H_{m2}F(2n2-m2+1)-SO_2$  (n1 and n2 are integers not less than 1, and m1 and m2 are integers not less than 0).
    - 3. The flame-retardant seamless belt according to claim 1,

wherein a cation making a pair with said anion, shown by said chemical formula 1, which constitutes said salt is a cation of any one of alkali metals, group 2A metals, transition metals, and amphoteric metals.

- 5 4. The flame-retardant seamless belt according to claim 3, wherein a metal constituting said cation is lithium.
  - 5. The flame-retardant seamless belt according to claim 1, wherein said anion-containing salt is lithium-bis (trifluoromethanesulfonyl) imide.
- 6. The flame-retardant seamless belt according to claim 1, wherein said anion-containing salt shown by said chemical formula 1 is added to said entire polymer component without intermediary of a medium consisting of a low-molecular-weight polyether-containing compound or a low-molecular-weight polar compound whose molecular weight is not more than 10000.
  - 7. The flame-retardant seamless belt according to claim 1, wherein supposing that a volume resistivity of said flame-retardant seamless belt measured at a low temperature of  $10^{\circ}\text{C}$  and a low humidity of 15% is  $R_{LL}$  and that a volume resistivity thereof measured at a high temperature of  $32.5^{\circ}\text{C}$  and a high humidity of 90% is  $R_{HH}$ , the volume resistivity  $R_{LL}$  and the volume resistivity  $R_{HH}$  satisfy an equation of  $\log_{10}R_{LL}$   $-\log_{10}R_{HH} \leq 2.5$ .

20

25

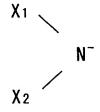
- 8. The flame-retardant seamless belt according to claim 1, having at least one coating layer on a peripheral surface thereof.
  - 9. A method of manufacturing a flame-retardant seamless belt

comprising the steps of:

fusing and kneading, by an extruder, a conductive master batch containing a polyester thermoplastic elastomer and not less than one wt% nor more than 20 wt% of an anion-containing salt, shown below by a chemical formula 1, added to said polyester thermoplastic elastomer; a flame-retardant additive; and a thermoplastic composition containing said polyester thermoplastic elastomer as a main component thereof to form a material for said flame-retardant seamless belt; and

extruding said material from an annular die and molding said material into a shape of a belt by using a sizing die.

Chemical Formula 1



10

15

20

Where  $X_1$  and  $X_2$  denote functional group which contains C, -F, and -SO<sub>2</sub>- and in which the number of carbon atoms is one to eight.

10. The method according to claim 9, wherein said flame-retardant additive and said thermoplastic composition containing said polyester thermoplastic elastomer as said main component thereof are kneaded and supplied to said extruder as a flame-retardant master batch; and said mixture of said conductive master batch and said flame-retardant master batch are extruded vertically from said annular die.

11. An image-forming apparatus having said flame-retardant seamless belt according to claim 1.